

**What is claimed is:**

1. A wireless communication method, comprising:
  - 5 dividing data into a plurality of data units;
  - generating a plurality of coded words by assigning an error correction code to each of the data units;
  - generating a packet storing the plurality of coded words;
  - 10 assigning coded word number information about the number of coded words stored in the packet to the packet; and
  - transmitting the packet with the coded word number information.
- 15 2. A wireless communication method, comprising:
  - generating a coded word from a data unit to be transmitted;
  - generating a packet for storing the coded word;
  - 20 assigning coding parameter information about information relating to a coding method used when the coded word is generated from the data unit to the packet; and
  - transmitting the packet with the coding

parameter information.

3. The method according to claim 2, further comprising:

5 receiving a packet to which the coding parameter information is assigned;

determining whether or not a coded word stored in the received packet can be decoded according to the coding parameter information; and

10 performing a process of decoding the coded word only when the coded word can be decoded.

4. A wireless communication method for transmitting first data and second data, 15 comprising:

generating plural pieces of first data by copying the first data;

transmitting the plural pieces of first data and the second data;

20 receiving the plural pieces of first data and the second data;

performing majority processing on plural pieces of regenerated data obtained by regenerating each of the plural pieces of first data;

25 outputting the regenerated data determined to

be most probable in the majority processing as the first data; and  
regenerating and outputting the received second data.

5

5. A wireless communication method for transmitting first data and second data, comprising:

10 repeatedly transmitting the first data a plurality of times;

transmitting the second data;

15 performing majority processing on plural pieces of regenerated data obtained by regenerating the first data repeatedly received a plurality of times;

outputting the regenerated data determined to be most probable in the majority processing as the first data; and

20 regenerating and outputting the received second data.

25 6. The method according to claim 4, wherein when coded word number information about a number of coded words is assigned to a packet storing a plurality of coded words and transmitted,

the coded word number information corresponds to the first data, and the plurality of coded words correspond to the second data.

5       7.     The method according to claim 4, wherein  
when coding parameter information about a  
coding method used when a coded word is generated  
is assigned to a packet storing the coded word, the  
coding parameter information corresponds to the  
10      first data, and the coded word corresponds to the  
second data.

15       8.     The method according to claim 4, wherein  
in the majority processing, only when  
probability of obtaining regenerated data  
determined to be most probable exceeds a  
predetermined threshold probability, the  
regenerated data is output as first data.

20       9.     A wireless communication method, comprising:  
dividing data into a plurality of data units;  
assigning communication control information  
about the data to each of the plurality of data  
units;  
25           generating a plurality of coded words by

assigning an error correction code to each of the plurality of data units with the communication control information; and

5 generating a packet for storing the plurality of coded words and transmitting the packet.

10. A wireless communication method for performing wireless communications using a packet storing one or more coded words between an access point and a plurality of stations, wherein

a coded word stored in a packet transmitted from the access point to the station is made shorter than a coded word stored in a packet transmitted from the station to the access point.

15 11. A wireless communication method for performing wireless communications using a packet storing one or more coded words between an access point and a plurality of stations, wherein:

20 coded word number information about the number of coded words stored in the packet is assigned to the packet;

25 coding parameter information about information relating to the coding method used when the coded word is generated is assigned to the packet;

when first data and second data are transmitted using the packet,

plural pieces of first data are generated by copying the first data;

5 the plural pieces of first data and the second data are transmitted;

the plural pieces of first data and the second data are received;

10 majority processing is performed on plural pieces of regenerated data obtained by regenerating each of the plural pieces of first data;

15 the regenerated data determined to be most probable in the majority processing is output as the first data; and

the received second data are regenerated and output,

20 communications control information about data to be transmitted is set in each of the coded words; and

a coded word stored in a packet transmitted from the access point to the station is made shorter than a coded word stored in a packet transmitted from the station to the access point.

12. A wireless communication device, comprising:
  - a decoding unit decoding a coded word stored in a received packet, the packet including a coded word and coding parameter information about information relating to the coding method used when the coded word is generated, and;
  - a coding parameter extraction unit extracting the coding parameter information from the packet; and
- 10 a control unit activating said decoding unit when the coding parameter information extracted by said coding parameter extraction unit indicates a coding method in which said decoding unit can decode data, and stopping said decoding unit when the coding parameter information indicates a coding method in which said decoding unit cannot decode data.
- 15
13. A wireless communication device, which receives first data a plurality of times and receives second data, comprising:
  - a majority unit performing majority processing on plural pieces of regenerated data obtained by regenerating each piece of the received first data;
  - 20 and
- 25

a decoder regenerating the second data using regenerated data determined to be most probable in said majority processing.